



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,403	09/29/2003	Yu-Chou Lee	11401-US-PA	2402
31561	7590	08/09/2004	EXAMINER	
JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE			ABRAHAM, FETSUM	
7 FLOOR-1, NO. 100			ART UNIT	PAPER NUMBER
ROOSEVELT ROAD, SECTION 2			2826	
TAIPEI, 100				
TAIWAN				

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/605,403

Applicant(s)

LEE ET AL.

Examiner

Fetsum Abraham

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17 and 18 is/are ~~allowed~~.
- 6) ☒ Claim(s) 1, 2, 7, 8 and ~~9-12~~ is/are rejected.
- 7) ☒ Claim(s) 3-6 and 13-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**Claims rejection**

As a preliminary matter, the allowance of claims 1-16 has been withdrawn in view of the newly found prior art applied to this action.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1,2,7,8,10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seo (6,323,521).**

As for claims 1,7,11, the patent discloses a TFT formed on a substrate composed of all the claimed layers including a multilayered gate electrode with one of the layers being a MoNb material (see column 5, 20-30). Clearly, an alloy is a mixture of metals and the patent defines the composite material as Mo alloy. Based on the description of "MoNb alloy" by the applicant in the specification in relation to gate (102) of the claimed invention, "the gate 102 is preferably based on MoNb alloy" that is also taught to be a single layer or a composite layer with other additional materials. Therefore, it would have been obvious to one skilled in the art to safely conclude the material in the prior art as being a MoNb alloy consistent to the description of then material by the applicant.

Please note that bottom- gate or top-gate TFTs are functionally similar and the gate electrode in the TFT of the prior art applies to both types of transistors since both types are disclosed in the figures.

Art Unit: 2826

As for claim 7, the prior art provides a multilayered source/drain electrode with one of the layers being MoNd (see column 6, 1-4).

As for claims 2,8,10 material composition in an alloy or a molecule is variable in nature that changes from a design to another without patentable weight unless criticality is an issue. In this case, the specification contains no disclosure of either the critical nature of the claimed arrangement or any unexpected results arising therefrom. Where patentability is said to be based upon particular chosen dimensions or upon another variable recited in a claim, the applicant must show that the chosen dimensions are critical. In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Claims 1,2,7,8,11,12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (6,396,106).

As for claims 1,7,11, the patent discloses a TFT formed on a substrate composed of all the claimed layers including source/drain layers formed from MoNb material. Clearly, an alloy is a mixture of metals and the patent defines the composite material as Mo alloy. Based on the description of "MoNb alloy" by the applicant in the specification in relation to gate (102) of the claimed invention, "the gate 102 is preferably based on MoNb alloy" that is also taught to be a single layer or a composite layer with other additional materials. Therefore, it would have been obvious to one skilled in the art to safely conclude the material in the prior art as being a MoNb alloy consistent to the description of then material by the applicant.

As for claims 2,8,10 material composition in an alloy or a molecule is variable in nature that changes from a design to another without patentable weight unless criticality is an issue. In this case, the specification contains no disclosure of either the critical nature of the claimed arrangement or any unexpected results arising therefrom. Where patentability is said to be based upon particular chosen dimensions or upon another variable recited in a claim, the applicant must show that the chosen dimensions are critical. In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Art Unit: 2826

**Claims 3-6,9,13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

**Claims 17-18 are allowed.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fetsum Abraham whose telephone number is: 571-272-1911. The examiner can normally be reached on 8:00 - 18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J Flynn can be reached on 571-272-1915.

  
**Fetsum Abraham**

**8/3/04**